

RECEIVED

JAN 02 2003

TECH CENTER 1600/2900



1600

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/936,883C

DATE: 12/26/2002

TIME: 13:07:26

Input Set : D:\Seqlist.txt

Output Set: N:\CRF4\12262002\I936883C.raw

3 <110> APPLICANT: MIYATA, Toshio
 5 <120> TITLE OF INVENTION: A Method for Detecting Megsin Protein and Use
 6 Thereof
 8 <130> FILE REFERENCE: F2-101DP1PCT
 C--> 10 <140> CURRENT APPLICATION NUMBER: US/09/936,883C
 C--> 11 <141> CURRENT FILING DATE: 2001-12-21
 13 <150> PRIOR APPLICATION NUMBER: JP 1999-75305
 14 <151> PRIOR FILING DATE: 1999-03-19
 16 <150> PRIOR APPLICATION NUMBER: JP 1999-306623
 17 <151> PRIOR FILING DATE: 1999-10-28
 19 <160> NUMBER OF SEQ ID NOS: 21
 21 <170> SOFTWARE: PatentIn Ver. 2.0
 23 <210> SEQ ID NO: 1
 24 <211> LENGTH: 1143
 25 <212> TYPE: DNA
 26 <213> ORGANISM: Homo sapiens
 28 <220> FEATURE:
 29 <221> NAME/KEY: CDS
 30 <222> LOCATION: (1)..(1140)
 32 <300> PUBLICATION INFORMATION:
 33 <302> TITLE: A mesangium-predominant gene, megsin, is a new serpin
 34 upregulated in IgA nephropathy.
 35 <303> JOURNAL: J. Clin. Invest.
 36 <304> VOLUME: 120
 37 <305> ISSUE: 4
 38 <306> PAGES: 828-836
 39 <307> DATE: 1998-08-15
 41 <400> SEQUENCE: 1
 42 atg gcc tcc ctt gct gca gca aat gca gag ttt tgc ttc aac ctg ttc 48
 43 Met Ala Ser Leu Ala Ala Asn Ala Glu Phe Cys Phe Asn Leu Phe
 44 1 5 10 15
 46 aga gag atg gat gac aat caa gga aat gga aat gtg ttc ttt tcc tct 96
 47 Arg Glu Met Asp Asp Asn Gln Gly Asn Gly Asn Val Phe Phe Ser Ser
 48 20 25 30
 50 ctg agc ctc ttc gct gcc ctg gtc cgc ttg ggc gct caa gat 144
 51 Leu Ser Leu Phe Ala Ala Leu Ala Leu Val Arg Leu Gly Ala Gln Asp
 52 35 40 45
 54 gac tcc ctc tct cag att gat aag ttg ctt cat gtt aac act gcc tca 192
 55 Asp Ser Leu Ser Gln Ile Asp Lys Leu Leu His Val Asn Thr Ala Ser
 56 50 55 60
 58 gga tat gga aac tct tct aat agt cag tca ggg ctc cag tct caa ctg 240
 59 Gly Tyr Gly Asn Ser Ser Asn Ser Gln Ser Gly Leu Gln Ser Gln Leu
 60 65 70 75 80

ENTERED

P.6

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/936,883C

DATE: 12/26/2002
TIME: 13:07:26

Input Set : D:\Seqlist.txt
Output Set: N:\CRF4\12262002\I936883C.raw

62	aaa	aga	gtt	ttt	tct	gat	ata	aat	gca	tcc	cac	aag	gat	tat	gat	ctc	288	
63	Lys	Arg	Val	Phe	Ser	Asp	Ile	Asn	Ala	Ser	His	Lys	Asp	Tyr	Asp	Leu		
64																95		
66	85															90		
67	66	agt	att	gtg	aat	ggg	ctt	ttt	gct	gaa	aaa	gtg	tat	ggc	ttt	cat	aag	336
68	Ser	Ile	Val	Asn	Gly	Leu	Phe	Ala	Glu	Lys	Val	Tyr	Gly	Phe	His	Lys		
69																105		
70	70	gac	tac	att	gag	tgt	gcc	gaa	aaa	tta	tac	gat	gcc	aaa	gtg	gag	cga	384
71	Asp	Tyr	Ile	Glu	Cys	Ala	Glu	Lys	Leu	Tyr	Asp	Ala	Lys	Val	Glu	Arg		
72																125		
74	72	gtt	gac	ttt	acg	aat	cat	tta	gaa	gac	act	aga	cgt	aat	att	aat	aag	432
75	Val	Asp	Phe	Thr	Asn	His	Leu	Glu	Asp	Thr	Arg	Arg	Asn	Ile	Asn	Lys		
76																130		
77	76	130														135		
78	77	tgg	gtt	gaa	aat	gaa	aca	cat	ggc	aaa	atc	aag	aac	gtg	att	ggt	gaa	480
79	Trp	Val	Glu	Asn	Glu	Thr	His	Gly	Lys	Ile	Lys	Asn	Val	Ile	Gly	Glu		
80																145		
81	80	145														150		
82	81	gtt	ggc	ata	agc	tca	tct	gct	gta	atg	gtg	ctg	gtg	aat	gct	gtg	tac	528
83	Gly	Gly	Ile	Ser	Ser	Ala	Val	Met	Val	Leu	Val	Asn	Ala	Val	Tyr			
84																165		
85	84	165														170		
86	85	ttc	aaa	ggc	aag	tgg	caa	tca	gcc	tcc	acc	aag	agc	gaa	acc	ata	aat	576
87	Phe	Lys	Gly	Lys	Trp	Gln	Ser	Ala	Phe	Thr	Lys	Ser	Glu	Thr	Ile	Asn		
88																180		
89	88	180														185		
90	89	tgc	cat	ttc	aaa	tct	ccc	aag	tgc	tct	ggg	aag	gca	gtc	gcc	atg	atg	624
91	Cys	His	Phe	Lys	Ser	Pro	Lys	Cys	Ser	Gly	Lys	Ala	Val	Ala	Met	Met		
92																195		
93	92	195														200		
94	cat	cag	gaa	cg	aag	ttc	aat	ttg	tct	gtt	att	gag	gac	cca	tca	atg	672	
95	His	Gln	Glu	Arg	Lys	Phe	Asn	Leu	Ser	Val	Ile	Glu	Asp	Pro	Ser	Met		
96																210		
97	96	210														215		
98	aag	att	ctt	gag	ctc	aga	tac	aat	ggt	ggc	ata	aac	atg	tac	gtt	ctg	720	
99	Lys	Ile	Leu	Glu	Leu	Arg	Tyr	Asn	Gly	Gly	Ile	Asn	Met	Tyr	Val	Leu		
100																225		
101	100	225														230		
102	ctg	cct	gag	aat	gac	ctc	tct	gaa	att	gaa	aac	aaa	ctg	acc	tcc	cag	768	
103	Leu	Pro	Glu	Asn	Asp	Leu	Ser	Glu	Ile	Glu	Asn	Lys	Leu	Thr	Phe	Gln		
104																245		
105	104	245														250		
106	aat	cta	atg	gaa	tgg	acc	aat	cca	agg	cga	atg	acc	tct	aag	tat	gtt	816	
107	Asn	Leu	Met	Glu	Trp	Thr	Asn	Pro	Arg	Arg	Met	Thr	Ser	Lys	Tyr	Val		
108																260		
109	108	260														265		
110	gag	gta	ttt	ttt	cct	cag	ttc	aag	ata	gag	aag	aat	tat	gaa	atg	aaa	864	
111	Glu	Val	Phe	Phe	Pro	Gln	Phe	Lys	Ile	Glu	Lys	Asn	Tyr	Glu	Met	Lys		
112																275		
113	112	275														280		
114	caa	tat	ttg	aga	gcc	cta	ggg	ctg	aaa	gat	atc	ttt	gat	gaa	tcc	aaa	912	
115	Gln	Tyr	Ile	Leu	Arg	Ala	Leu	Gly	Leu	Lys	Asp	Ile	Phe	Asp	Glu	Ser	Lys	
116																290		
117	116	290														295		
118	gca	gat	ctc	tct	ggg	att	gct	tcg	ggg	ggt	cgt	ctg	tat	ata	tca	agg	960	
119	Ala	Asp	Leu	Ser	Gly	Ile	Ala	Ser	Gly	Gly	Arg	Leu	Tyr	Ile	Ser	Arg		
120																305		
121	120	305														310		
122	atg	atg	cac	aaa	tct	tac	ata	gag	gtc	act	gag	gag	ggc	acc	gag	gct	1008	
123	Met	Met	His	Lys	Ser	Tyr	Ile	Glu	Val	Thr	Glu	Glu	Gly	Thr	Glu	Ala		
124																325		
125	124	325														330		
126	act	gct	gcc	aca	gga	agt	aat	att	gta	gaa	aag	caa	ctc	cct	cag	tcc	1056	

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/936,883C

DATE: 12/26/2002
TIME: 13:07:26

Input Set : D:\Seqlist.txt
Output Set: N:\CRF4\12262002\I936883C.raw

```

127 Thr Ala Ala Thr Gly Ser Asn Ile Val Glu Lys Gln Leu Pro Gln Ser
128          340           345           350
130 acg ctg ttt aga gct gac cac cca ttc cta ttt gtt atc agg aag gat      1104
131 Thr Leu Phe Arg Ala Asp His Pro Phe Leu Phe Val Ile Arg Lys Asp
132          355           360           365
134 gac atc atc tta ttc agt ggc aaa gtt tct tgc cct tga                  1143
135 Asp Ile Ile Leu Phe Ser Gly Lys Val Ser Cys Pro
136          370           375           380
139 <210> SEQ ID NO: 2
140 <211> LENGTH: 380
141 <212> TYPE: PRT
142 <213> ORGANISM: Homo sapiens
144 <400> SEQUENCE: 2
145 Met Ala Ser Leu Ala Ala Ala Asn Ala Glu Phe Cys Phe Asn Leu Phe
146    1          5           10           15
148 Arg Glu Met Asp Asp Asn Gln Gly Asn Gly Asn Val Phe Phe Ser Ser
149          20           25           30
151 Leu Ser Leu Phe Ala Ala Leu Ala Leu Val Arg Leu Gly Ala Gln Asp
152          35           40           45
154 Asp Ser Leu Ser Gln Ile Asp Lys Leu Leu His Val Asn Thr Ala Ser
155          50           55           60
157 Gly Tyr Gly Asn Ser Ser Asn Ser Gln Ser Gly Leu Gln Ser Gln Leu
158          65           70           75           80
160 Lys Arg Val Phe Ser Asp Ile Asn Ala Ser His Lys Asp Tyr Asp Leu
161          85           90           95
163 Ser Ile Val Asn Gly Leu Phe Ala Glu Lys Val Tyr Gly Phe His Lys
164          100          105          110
166 Asp Tyr Ile Glu Cys Ala Glu Lys Leu Tyr Asp Ala Lys Val Glu Arg
167          115          120          125
169 Val Asp Phe Thr Asn His Leu Glu Asp Thr Arg Arg Asn Ile Asn Lys
170          130          135          140
172 Trp Val Glu Asn Glu Thr His Gly Lys Ile Lys Asn Val Ile Gly Glu
173 145          150          155          160
175 Gly Gly Ile Ser Ser Ser Ala Val Met Val Leu Val Asn Ala Val Tyr
176          165          170          175
178 Phe Lys Gly Lys Trp Gln Ser Ala Phe Thr Lys Ser Glu Thr Ile Asn
179          180          185          190
181 Cys His Phe Lys Ser Pro Lys Cys Ser Gly Lys Ala Val Ala Met Met
182          195          200          205
184 His Gln Glu Arg Lys Phe Asn Leu Ser Val Ile Glu Asp Pro Ser Met
185          210          215          220
187 Lys Ile Leu Glu Leu Arg Tyr Asn Gly Gly Ile Asn Met Tyr Val Leu
188 225          230          235          240
190 Leu Pro Glu Asn Asp Leu Ser Glu Ile Glu Asn Lys Leu Thr Phe Gln
191          245          250          255
193 Asn Leu Met Glu Trp Thr Asn Pro Arg Arg Met Thr Ser Lys Tyr Val
194          260          265          270
196 Glu Val Phe Phe Pro Gln Phe Lys Ile Glu Lys Asn Tyr Glu Met Lys
197          275          280          285

```

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/936,883C

DATE: 12/26/2002
TIME: 13:07:26

Input Set : D:\Seqlist.txt
Output Set: N:\CRF4\12262002\I936883C.raw

199 Gln Tyr Leu Arg Ala Leu Gly Leu Lys Asp Ile Phe Asp Glu Ser Lys
 200 290 295 300
 202 Ala Asp Leu Ser Gly Ile Ala Ser Gly Gly Arg Leu Tyr Ile Ser Arg
 203 305 310 315 320
 205 Met Met His Lys Ser Tyr Ile Glu Val Thr Glu Gly Thr Glu Ala
 206 325 330 335
 208 Thr Ala Ala Thr Gly Ser Asn Ile Val Glu Lys Gln Leu Pro Gln Ser
 209 340 345 350
 211 Thr Leu Phe Arg Ala Asp His Pro Phe Leu Phe Val Ile Arg Lys Asp
 212 355 360 365
 214 Asp Ile Ile Leu Phe Ser Gly Lys Val Ser Cys Pro
 215 370 375 380
 218 <210> SEQ ID NO: 3
 219 <211> LENGTH: 29
 220 <212> TYPE: DNA
 221 <213> ORGANISM: Artificial Sequence
 223 <220> FEATURE:
 224 <223> OTHER INFORMATION: Description of Artificial Sequence:Artificially
 225 synthesized degenerative primer sequence
 227 <220> FEATURE:
 228 <221> NAME/KEY: misc_feature
 229 <222> LOCATION: 26, 29 /
 230 <223> OTHER INFORMATION: n is a or g or c or t.
 232 <400> SEQUENCE: 3
 W--> 233 gtgaatgctg tgtacttaaa ggcaantgn 29
 236 <210> SEQ ID NO: 4
 237 <211> LENGTH: 17
 238 <212> TYPE: DNA
 239 <213> ORGANISM: Artificial Sequence
 241 <220> FEATURE:
 242 <223> OTHER INFORMATION: Description of Artificial Sequence:Artificially
 243 synthesized degenerative primer sequence
 245 <220> FEATURE:
 246 <221> NAME/KEY: misc_feature
 247 <222> LOCATION: 3, 9, 15 /
 248 <223> OTHER INFORMATION: n is a or g or c or t.
 250 <400> SEQUENCE: 4
 W--> 251 aanagraang grtcngc 17
 254 <210> SEQ ID NO: 5
 255 <211> LENGTH: 26
 256 <212> TYPE: DNA
 257 <213> ORGANISM: Artificial Sequence
 259 <220> FEATURE:
 260 <223> OTHER INFORMATION: Description of Artificial Sequence:Artificially
 261 synthesized degenerative primer sequence
 263 <220> FEATURE:
 264 <221> NAME/KEY: misc_feature
 265 <222> LOCATION: 6, 9, 12, 15, 18, 21 /
 266 <223> OTHER INFORMATION: n is a or g or c or t.

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/936,883C

DATE: 12/26/2002
TIME: 13:07:26

Input Set : D:\Seqlist.txt
Output Set: N:\CRF4\12262002\I936883C.raw

268 <400> SEQUENCE: 5
W--> 269 atggcncn~~cng~~ cngcngc naaygc 26
272 <210> SEQ ID NO: 6
273 <211> LENGTH: 37
274 <212> TYPE: DNA
275 <213> ORGANISM: Artificial Sequence
277 <220> FEATURE:
278 <223> OTHER INFORMATION: Description of Artificial Sequence:Artificially
279 synthesized degenerative primer sequence
281 <400> SEQUENCE: 6 37
282 cgacctccag aggcaattcc agagagatca gccctgg
285 <210> SEQ ID NO: 7
286 <211> LENGTH: 34
287 <212> TYPE: DNA
288 <213> ORGANISM: Artificial Sequence
290 <220> FEATURE:
291 <223> OTHER INFORMATION: Description of Artificial Sequence:Artificially
292 synthesized degenerative primer sequence
294 <400> SEQUENCE: 7 34
295 gtcttccaag cctacagatt tcaagtggct cctc
298 <210> SEQ ID NO: 8
299 <211> LENGTH: 30
300 <212> TYPE: DNA
301 <213> ORGANISM: Artificial Sequence
303 <220> FEATURE:
304 <223> OTHER INFORMATION: Description of Artificial Sequence:Artificially
305 synthesized antisense primer sequence
307 <400> SEQUENCE: 8 30
308 gtcaggga gtgaagatgc tcagggaaga
311 <210> SEQ ID NO: 9
312 <211> LENGTH: 27
313 <212> TYPE: DNA
314 <213> ORGANISM: Artificial Sequence
316 <220> FEATURE:
317 <223> OTHER INFORMATION: Description of Artificial Sequence:Artificially
318 synthesized antisense primer sequence
320 <400> SEQUENCE: 9 27
321 ctgacgtgca cagtcaccc gaggacc
324 <210> SEQ ID NO: 10
325 <211> LENGTH: 36
326 <212> TYPE: DNA
327 <213> ORGANISM: Artificial Sequence
329 <220> FEATURE:
330 <223> OTHER INFORMATION: Description of Artificial Sequence:Artificially
331 synthesized sense primer sequence
333 <400> SEQUENCE: 10 36
334 gaggtctcaag aagaaggcac tgaggcaact gctgcc
337 <210> SEQ ID NO: 11
338 <211> LENGTH: 15

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/09/936,883C

DATE: 12/26/2002
TIME: 13:07:27

Input Set : D:\Seqlist.txt
Output Set: N:\CRF4\12262002\I936883C.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:3; N Pos. 26, 29
Seq#:4; N Pos. 3, 9, 15
Seq#:5; N Pos. 6, 9, 12, 15, 18, 21
Seq#:18; N Pos. 158, 159, 160, 287, 288, 289
Seq#:18; Xaa Pos. 51, 94
Seq#:19; Xaa Pos. 51, 94